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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,672	06/20/2001	Yoshiteru Misumi	14718	6359
23389	7590	10/14/2003		
SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA GARDEN CITY, NY 11530			EXAMINER WILLS, MONIQUE M	
			ART UNIT	PAPER NUMBER
			1746	

DATE MAILED: 10/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/885,672

Applicant(s)

MISUMI, YOSHITERU

Examiner

Wills M Monique

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Priority

Japanese foreign priority document(s) P2000-1853555 and P2000-185356, both filed June 20, 2000 and submitted under 35 U.S.C. 119(a)-(d), has/have been received and placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grasso et al. U.S. Patent 4,973,520.

Grasso teaches a fuel cell power generating system 12 comprising a fuel processing system 14, a cooling system 16 and a coolant recovery and supply system 18 (col. 4, lines 15-20). The cooling system 16 has a flow path 20 for coolant which, in the embodiment shown, is an aqueous solution. The cooling system has a coolant pump 50 for circulating pressurized aqueous coolant, a heat exchanger 53 for removing heat for the aqueous cooling and a steam separator 54 for separating steam from the

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aqueous coolant (col. 4, lines 55-60). Steam separated from the aqueous coolant in the steam separator 54 is flowed via conduit 46 to the fuel processor 44. Conduit 56 extends from the steam separator to the coolant pump 50 to enable the cooling pump to draw coolant from the steam separator. A blow down conduit 58 extends from conduit 56 at a point downstream of the steam separator and upstream of the coolant pump (col. 5, lines 1-6). The cooling recovery and supply system 18 includes a condenser 76, a boost pump 80 and after treatment system 82 and a feed water pump 84 (col. 5, lines 25-30). The condenser removes heat from the steam, the cathode exhaust and the anode exhaust. The condensed water is flowed from the condenser via conduit 86 (col. 5, lines 35-40). The recirculation conduit divides the conduit 96 into a first portion 96a in flow communication with the water treatment system and a second portion 96b in flow communication with the feedwater pump 84. (col. 5, lines 60-68). The auxiliary laboratory system includes a water tank 104, a water steam deaerator 106 for storing supply water and a water treatment system 114. See column 6, lines 5-20. The fuel cell system also includes a hot water storage tank 126 that includes a source of process water and a source of heat (col. 6, lines 40-45). The source of process water is the coolant recovery and supply system 18. The source of heat is the fuel cell stack 12. Means for transferring heat from the fuel cell stack to the tank, such as the cooling system 16, is in flow communication with the heated coolant via conduit 128 and flow control 132. See column 6, lines 40-50. The tank 126 has a first chamber 134, a second chamber 136 and a third chamber 138. The third chamber receives purified water from the water treatment system via conduit 96a'. A heat exchanger 142 is

disposed in the third chamber to transfer heat to the purified water to make steam. The second and third chambers 36,138 might be insulated against the loss of heat to the first chamber (col. 6, lines 50-63).

The reference does not expressly disclose the condensed-water supply system upstream from a water storage tank or the auxiliary water supply path being upstream from the heat exchanger. The reference is silent to supplying said water storage tank with condensed water obtained by condensing steam from a hot water storage tank.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ said arrangements, since it has been held that rearrange parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Conclusions

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Surampudi et al. U.S. Patent 6,146,781 teaches a direct methanol feed fuel cell and system. Ueno et al. U.S. Patent 6,511,765 fuel cell system. Taylor U.S. Patent 4,670,357 teaches a fuel cell power plant employing an aqueous solution. Edlund et al. U.S. Patent 6,376,113 teaches an integrated fuel cell system. Yargeau U.S. Patent 4,120,787 fuel cell water conditioning process and system and dearator for use therein.

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Monique Wills whose telephone number is (703) 305-0073. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.

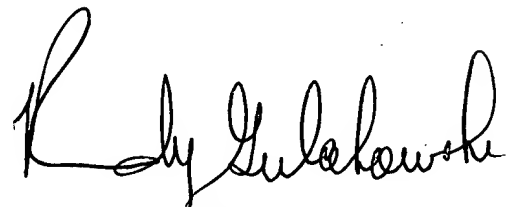
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Randy Gulakowski, may be reached at 703-308-4333.

The unofficial fax number is (703) 305-3599. The Official fax number for non-final amendments is 703-872-9310. The Official fax number for after final amendments is 703-872-9311.

Mw

09/02/03

A handwritten signature in black ink, appearing to read "Randy Gulakowski". The signature is fluid and cursive, with the first name "Randy" and last name "Gulakowski" clearly distinguishable.

RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700